

Preliminary Amendment  
National Stage of PCT/JP2005/001596  
Attorney Docket No. Q93680

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (original) A p-type semiconductor material expressed in a composition formula of  $Zn_{(1-\alpha-\beta-\gamma)}Cu_\alpha A_\beta B_\gamma S_{(1-x-y)}Se_xTe_y$  ( $0.004 \leq \alpha \leq 0.4$ ,  $\beta \leq 0.2$ ,  $\gamma \leq 0.2$ ,  $0 \leq x \leq 1$ ,  $0 \leq y \leq 0.2$ , and  $x + y \leq 1$ , A and B are elements selected from Cd, Hg and alkaline earth metals).
2. (original) The p-type semiconductor material according to claim 1, wherein the A is Mg.
3. (original) The p-type semiconductor material according to claim 1, wherein the B is Cd.
4. (original) The p-type semiconductor material according to claim 2, wherein the B is Cd.
5. (currently amended) The p-type semiconductor material according to claim 1-any of claims 1 to 4, wherein the semiconductor material contains at least one dopant selected from Cl, Br, I, Al, Ga and In as a compensation dopant and a concentration of the compensation dopant is  $10^{17}$  to  $10^{20} \text{ cm}^{-3}$ .
6. (currently amended) The p-type semiconductor material according to claim 1-any of claims 1 to 4, wherein the semiconductor material has a light absorption coefficient of  $5 \times 10^5 \text{ cm}^{-1}$  or less at 470 nm to 750 nm.
7. (currently amended) The p-type semiconductor material according to claim 1-any of claims 1 to 4, wherein a volume resistivity of the semiconductor material is equal to or higher than  $10^4 \Omega\text{cm}$  and is lower than  $10^{-3} \Omega\text{cm}$ .

8. (currently amended) The p-type semiconductor material according to claim 1-any of claims 1 to 4, wherein a carrier concentration of the semiconductor material is equal to or higher than  $10^{16}$  cm<sup>-3</sup> and is lower than  $10^{22}$  cm<sup>-3</sup>.
9. (currently amended) A semiconductor device in which the p-type semiconductor material according to claim 1, any of claims 1 to 4 constitutes a hole injecting electrode layer in an amorphous phase or a polycrystalline phase.
10. (original) The semiconductor device according to claim 9, wherein the semiconductor device is a light emitting device.
11. (new): The p-type semiconductor material according to claim 2, wherein the semiconductor material contains at least one dopant selected from Cl, Br, I, Al, Ga and In as a compensation dopant and a concentration of the compensation dopant is  $10^{17}$  to  $10^{20}$  cm<sup>-3</sup>.
12. (new): The p-type semiconductor material according to claim 3, wherein the semiconductor material contains at least one dopant selected from Cl, Br, I, Al, Ga and In as a compensation dopant and a concentration of the compensation dopant is  $10^{17}$  to  $10^{20}$  cm<sup>-3</sup>.
13. (new): The p-type semiconductor material according to claim 4, wherein the semiconductor material contains at least one dopant selected from Cl, Br, I, Al, Ga and In as a compensation dopant and a concentration of the compensation dopant is  $10^{17}$  to  $10^{20}$  cm<sup>-3</sup>.
14. (new): The p-type semiconductor material according to claim 2, wherein the semiconductor material has a light absorption coefficient of  $5 \times 10^5$  cm<sup>-1</sup> or less at 470 nm to 750 nm.
15. (new): The p-type semiconductor material according to claim 3, wherein the semiconductor material has a light absorption coefficient of  $5 \times 10^5$  cm<sup>-1</sup> or less at 470 nm to 750 nm.

16. (new): The p-type semiconductor material according to claim 4, wherein the semiconductor material has a light absorption coefficient of  $5 \times 10^5 \text{ cm}^{-1}$  or less at 470 nm to 750 nm.

17. (new): The p-type semiconductor material according to claim 2, wherein a volume resistivity of the semiconductor material is equal to or higher than  $10^4 \Omega\text{cm}$  and is lower than  $10^3 \Omega\text{cm}$ .

18. (new): The p-type semiconductor material according to claim 3, wherein a volume resistivity of the semiconductor material is equal to or higher than  $10^4 \Omega\text{cm}$  and is lower than  $10^3 \Omega\text{cm}$ .

19. (new): The p-type semiconductor material according to claim 4, wherein a volume resistivity of the semiconductor material is equal to or higher than  $10^4 \Omega\text{cm}$  and is lower than  $10^3 \Omega\text{cm}$ .

20. (new): The p-type semiconductor material according to claim 2, wherein a carrier concentration of the semiconductor material is equal to or higher than  $10^{16} \text{ cm}^{-3}$  and is lower than  $10^{22} \text{ cm}^{-3}$ .

21. (new): The p-type semiconductor material according to claim 3, wherein a carrier concentration of the semiconductor material is equal to or higher than  $10^{16} \text{ cm}^{-3}$  and is lower than  $10^{22} \text{ cm}^{-3}$ .

22. (new): The p-type semiconductor material according to claim 4, wherein a carrier concentration of the semiconductor material is equal to or higher than  $10^{16} \text{ cm}^{-3}$  and is lower than  $10^{22} \text{ cm}^{-3}$ .

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23. (new): A semiconductor device in which the p-type semiconductor material according to claim 2, constitutes a hole injecting electrode layer in an amorphous phase or a polycrystalline phase.

24. (new): A semiconductor device in which the p-type semiconductor material according to claim 3, constitutes a hole injecting electrode layer in an amorphous phase or a polycrystalline phase.

25. (new): A semiconductor device in which the p-type semiconductor material according to claim 4, constitutes a hole injecting electrode layer in an amorphous phase or a polycrystalline phase.

26. (new): The semiconductor device according to claim 23, wherein the semiconductor device is a light emitting device.

27. (new): The semiconductor device according to claim 24, wherein the semiconductor device is a light emitting device.

28. (new): The semiconductor device according to claim 25, wherein the semiconductor device is a light emitting device.